

ANSWER KEY

Unit 1: Colour Theory

Session 1: Principles of Colour Theory

A. Fill in the blanks

1. Hue
2. Saturation
3. Value
4. white
5. black
6. grey
7. wheel

Session 2: Colour Wheel

A. Fill in the blanks

1. primary
2. Artist colour wheel
3. Digital
4. orange
5. green
6. violet
7. red, yellow, blue

Session 3: Digital Colour Wheel

A. Fill in the blanks

1. electronic
2. RGB
3. yellow

Session 4: RGB Display Mechanism

A. Fill in the blanks

1. image
2. one
3. numerical
4. pixels

Session 5: Colour Schemes

A. Fill in the blanks

1. complementary
2. contrast
3. warm
4. cool

NOTES

Unit 2: Digital Photography and Pre-production

Session 1: Camera Angles and Movements

A. Fill in the blanks

1. high-angle
2. low-angle
3. eye-level
4. bird's eye
5. high-angle
6. Pan
7. Tilt
8. Dolly
9. Zoom
10. size
11. focus
12. Exposure
13. Hot
14. light
15. shutter

Session 2: Pre-production

A. Fill in the blanks

1. production
2. storyboard
3. storyboard
4. design
5. Model
6. storyboard

B. Match the Columns

1. (c)
2. (b)
3. (a)

Unit 3: Drawing and Painting using Adobe Photoshop

Session 1: Introduction to Adobe Photoshop

A. Match the columns

1. (a)
2. (d)
3. (b)
4. (c)

Session 2: Drawing and Painting Tools

A. Fill in the blanks

1. lines
2. raster
3. vector
4. pencil
5. Move



6. Marquee
7. Lasso
8. swatches

Session 3: Blending Modes

A. Match the columns

- | | | | |
|--------|--------|--------|--------|
| 1. (c) | 2. (b) | 3. (a) | 4. (d) |
|--------|--------|--------|--------|

Session 4: Colour Modes

A. Multiple Choice questions

- | | | | |
|--------|--------|--------|--------|
| 1. (a) | 2. (d) | 3. (b) | 4. (c) |
|--------|--------|--------|--------|

Session 5: Image Adjustment and Colour Correction

A. Fill in the blanks

1. saturation
2. balance
3. shadows

Session 6: Digital Matte Painting

A. Fill in the blanks

1. Matte
2. Raster

Session 7: Frame Composition

A. Fill in the blanks

1. scene
2. nine
3. formal
4. asymmetrical
5. balance
6. unwanted
7. graphic

Unit 4: Lighting for Photography

Session 1: Effective Lighting for Photography

A. Fill in the blanks

1. longer
2. shorter
3. white
4. black
5. blue, green
6. light

NOTES



GLOSSARY

2D map: Two-dimensional map consists of either a bitmap or a procedural map. Texture coordinates are essential for mounting a 2D map on 3D model.

2-sided polygon: A polygon that has a front and a back, and is 2-sided. A 2-sided polygon has two normal surfaces, facing the opposite directions. For example, a playing card.

3D map: Three-dimensional map is either built from multiple layers of bitmaps or generated in three dimensions with a procedural texture.

3D object: The most common 3D objects are geometric objects, which can be classified according to whether they are polygon meshes, surfaces, curves, implicit objects or nulls.

Additive opacity: The type of opacity that adds background colour to the material's colour of the transparent object.

Alpha channel: One of the four channels (or components) of information that make up every pixel in an image. There are three channels for red, green and blue (RGB) and one alpha channel.

Ambient light: It is the light that is already present in a scene, before any additional lighting is added.

Ambient map: This allows manipulation of the ambient component of an object's reflection-illumination model. Usually, the ambient component is given a value near that of the diffuse component.

Angle of view: The viewable field covered by a lens, measured in degrees.

Animation: The process of creating a progressively altering image that gives the appearance of continuous motion.

Aperture: The opening size of a camera lens. The greater the aperture, the smaller the depth of field and the greater the amount of light entering the lens.

Aspect ratio: A description of the proportion of an image by comparing its width to its height.

AVI: Audio Video Interleave is a popular file format that combines video and audio.

Axis of motion: In 3D space, the axis that an object follows during movement.

Axis of rotation: In 3D space, the axis around which an object rotates is called an axis of rotation.

Bit: The building blocks of computer data. It has either the value of 1 or 0.

Bitmap: It is a grid where each individual square is a pixel that contains colour information.

Blending: The mixing of two (or more) textures into one final texture that is displayed in rendering.

Byte: It is equal to 8 bits. Multiples of bytes make the terms kilobyte (1024 bytes), megabytes (1024 kilobytes) and gigabyte (1024 megabytes).

Camera: It is an optical instrument used to record images. A digital camera is a hardware device that takes photographs and stores the image as data on a memory card.

Centre point: A point that represents the centre of an object. The centre point of a polygon is where the line representing the normal comes out from.

Compositing: The process of combining multiple elements shot separately (still images, movie clips) into a final image or sequence to give an impression that they were all shot at the same time.

Depth of field: The total distance on either side of the point of focus, which when viewed from an appropriate distance, appears sharp in the final print.

Dimension: A measure of spatial extent, especially width, height or length.

Dots per inch, DPI: This refers to the number of dots that exist within each inch of a bitmapped image.

Field of view: It is the open observable area that a person can see through one's eyes or via an optical device.

Frame: A frame in photography is a static image, which when followed by other static images sequentially gives the illusion of motion.

Framing: In photography, it refers to the technique of drawing focus to the subject in the photo by blocking other parts of the image with some image in the scene.

Frame rate: It is expressed as Frames per Second (FPS). It is the amount of individual video frames that a camera captures per second.

Hue: The position of a colour in the spectrum that describes the tone or tint of a colour, such as red, yellow, or blue.

JPEG (Joint Photographic Experts Group): A widely accepted, international standard for compression of colour images.

Layer: It is a portion of a scene. Each layer consists of an object or multiple objects that can be edited separately from the rest of the objects in a scene. In photoshop, layers act as pieces of images stacked on each other.

Layout: The art or process of arranging printed or graphic matter on a page.

Luminance: The black and white information (brightness, sharpness, and contrast) encoded in a colour. The amount of luminance contained in a colour is directly proportional to the amount of light intensity.

Model sheets: These are also used for reference in 3D modelling. It is, usually, used as reference material so as to allow proper proportions in 3D modelling.



NOTES

Opacity: *Opacity is the state of a body that makes it impervious to the rays of light.*

Plane: *Plane refers to a two-dimensional (i.e., flat and level) surface. Imagine a plane as a piece of glass that is infinitely large but has no depth.*

Polygon: *A geometric shape in one or many planes. Polygonal modelling consists of using many faces to create the shape.*

Primary colours: *There are three primary colours of light —red, green and blue (RGB).*

Raster image: *also called bitmap graphics, a type of digital image that uses tiny rectangular pixels, or picture elements, arranged in a grid formation to represent an image. (Britannica)*

RGB colour model: *It is an additive color model in which red, green, and blue light are added together in various ways to reproduce a broad array of colours.*



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